

REMARKS

1. In response to the Office Action mailed February 20, 2009, Applicants respectfully request reconsideration. Claims 20-46 were last presented for examination. Claims 40-46 were withdrawn from consideration. In the outstanding Office Action, claims 20-39 were rejected. By the foregoing Amendments, claims 20-21, 24, 29-31, 34 and 39 have been amended, claims 22, 23, 25, 32, 33, 35 and 40-46 have been cancelled and claims 47-56 have been added. Thus, upon entry of this paper, claims 20, 21, 24, 26-31, 34, 36-39 and 47-56 will be pending in this application. Of these twenty-four (24) claims, 2 claims (claims 20 and 30) are independent.

2. Based upon the above Amendment and following Remarks, Applicants respectfully request that all outstanding objections and rejections be reconsidered, and that they be withdrawn.

Claim Rejections under §102(e) in view of Topholm

3. The Examiner has rejected claims 20-24, 27, 30-34 and 37 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,748,093 to Topholm (hereinafter, "Topholm"). For at least the reasons discussed below, Applicants respectfully disagree.

4. Topholm is directed to improved methods for manufacturing an acoustic hearing aid which is worn in the auditory canal of a user. (*See*, Topholm, col. 1, lns. 25-32.) The hearing aid housing generated by the improved method includes a shell that is matched to the auditory canal of a user. (*See*, Topholm, col. 10, lns. 27-46.) The shell has an opening therein which is covered by a faceplate. Various components are placed inside the shell through the faceplate opening, such as a receiver, microphone, signal processor, battery, amplifier, *etc.* (*See*, Topholm, FIG. 2; col. 18, lns. 1-25.) As such, Topholm is directed to a custom fit in-the-ear hearing aid. (*See*, Topholm, col. 1, lns. 25-32.)

Claim 20

5. Applicants' amended claim 20 is directed to an "external component of a cochlear implant hearing system, comprising: a speech processor module operable in a stand-alone mode of operation and a body-worn mode of operation, and comprising an internal microphone, wherein

said speech processor module receives signals from said internal microphone when operable in said stand-alone mode of operation.” (*See*, Applicants’ claim 20, above; emphasis added.) Applicants claim 20 further recites that “said module receives signals from said external microphone when operable in said stand-alone mode of operation.” (*See*, Applicants’ claim 20, above.)

6. As noted, Topholm discloses an in-the-ear hear aid having a microphone positioned inside the moulded housing. (*See*, Topholm, FIG. 2; col. 18, lns. 1-25.) Topholm fails to disclose the use of an external microphone in addition to this internal microphone. Therefore, because Topholm cannot make use of two different microphones based on the mode of operation of the device, Applicants assert that Topholm fails to disclose that the hearing aid, or any speech processor contained therein, operates in both of a “stand-alone mode of operation and a body-worn mode of operation.”

7. Applicants’ claim 20 further recites “an operational mode controller configured to determine when said speech processor module is mounted in said case and to place said speech processor module in said body-worn mode of operation when said module is mounted in said case.” (*See*, Applicants’ claim 20, above.) As noted above, the acoustic hearing aid of Topholm is not operable in both of a “stand-alone mode of operation and a body-worn mode of operation” as defined in Applicants’ claims. As such, because Topholm cannot enter such multiple modes, it is impossible for Topholm to disclose the claimed “operational mode controller” configured to place the “speech processor module in said body-worn mode of operation.” Applicants further assert that Topholm fails to disclose all elements of claim 20 because Topholm fails to disclose a component that determines when the “speech processor module is mounted in said case,” and which takes the specific action of placing the speech processor module in a specific mode of operation as recited in Applicants’ claim 20.

8. Applicants further assert that it would not be obvious to modify Topholm to include the “operational mode controller” of Applicants’ claim 20. In particular, the hearing aid of Topholm only includes a microphone and fails to disclose the use of any external microphones. Because no additional microphones are used, there is no need for the hearing aid to make a

determination as to whether or not the speech processor is mounted in the case, and to utilize a different microphone based on such a determination.

9. For at least the reasons detailed above, Applicants assert that Topholm fails to anticipate or render obvious the invention recited in claim 20. Therefore, Applicants respectfully request that the rejection of claim 20 under 35 U.S.C. §102 be reconsidered, and that it be withdrawn.

Claim 30

10. Applicants' amended claim 30 is directed to an "external component of a cochlear implant hearing system, comprising: a speech processor module operable in a stand-alone mode of operation and a body-worn mode of operation, and comprising an internal microphone, wherein said speech processor module receives signals from said internal microphone when operable in said stand-alone mode of operation." (*See*, Applicants' claim 30, above; emphasis added.) Applicants claim 30 further recites that "said module receives signals from said external microphone when operable in said stand-alone mode of operation." (*See*, Applicants' claim 30, above.)

11. As noted, Topholm discloses an in-the-ear hear aid having a microphone positioned inside the moulded housing. (*See*, Topholm, FIG. 2; col. 18, lns. 1-25.) Topholm fails to disclose the use of an external microphone in addition to this internal microphone. Therefore, because Topholm cannot make use of two different microphones based on the mode of operation of the device, Applicants assert that Topholm fails to disclose that the hearing aid, or any speech processor contained therein, operates in both of a "stand-alone mode of operation and a body-worn mode of operation."

12. Applicants' claim 30 further recites "an operational mode controller configured to determine when said speech processor module is mounted in said case and to place said speech processor module in said body-worn mode of operation when said module is mounted in said case." (*See*, Applicants' claim 30, above.) As noted above, the acoustic hearing aid of Topholm is not operable in both of a "stand-alone mode of operation and a body-worn mode of operation" as defined in Applicants' claims. As such, because Topholm cannot enter such multiple modes, it is impossible for Topholm to disclose the claimed "operational mode controller" configured to place the "speech processor module in said body-worn mode of operation." Applicants further

assert that Topholm fails to disclose all elements of claim 30 because Topholm fails to disclose a component that determines when the “speech processor module is mounted in said case,” and which takes the specific action of placing the speech processor module in a specific mode of operation as recited in Applicants’ claim 30.

13. For at least the reasons detailed above, Applicants assert that Topholm fails to anticipate or render obvious the invention recited in claim 30. Therefore, Applicants respectfully request that the rejection of claim 30 under 35 U.S.C. §102 be reconsidered, and that it be withdrawn.

Claim Rejections under §102(b) in view of Berger

14. Claims 20, 29, 30 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,347,956 to Berger (hereinafter, “Berger”). For at least the reasons discussed below, Applicants respectfully disagree.

15. Berger is directed to a sheath and body harness which provides a protective holder for an acoustic hearing aid. (*See*, col. 1, lns. 36-54.) The hearing aid is placed in the holder and a cable extends from the hearing aid to a component which is designed to be worn in the ear of the user. (*See*, FIG. 7; col. 1, lns. 36-54.) As shown in FIG. 8 of Berger, the holder comprises a pouch made from “leather, or automobile vinyl. (*See*, Berger, FIG. 8; col. 2, lns. 17-42.) The hearing aid is inserted into the pouch, and the top cover is folded over to close the pouch. (*See*, Berger, FIG. 8; col. 2, lns. 17-42.) The pouch is secured to the user via neck and body straps. (*See*, Berger, FIG. 1; col. 2, lns. 17-42.)

Claim 20

16. Applicants’ amended claim 20 is directed to an “external component of a cochlear implant hearing system, comprising: a speech processor module operable in a stand-alone mode of operation and a body-worn mode of operation, and comprising an internal microphone, wherein said speech processor module receives signals from said internal microphone when operable in said stand-alone mode of operation.” (*See*, Applicants’ claim 20, above; emphasis added.) Applicants claim 20 further recites that “said module receives signals from said external microphone when operable in said stand-alone mode of operation.” (*See*, Applicants’ claim 20, above.)

17. As noted, Berger discloses an acoustic hearing aid that uses a single a microphone positioned therein. Berger fails to disclose the use of an external microphone in addition to this internal microphone. Therefore, because Berger cannot make use of two different microphones based on the mode of operation of the device, Applicants assert that Berger fails to disclose that the hearing aid, or any speech processor contained therein, operates in both of a “stand-alone mode of operation and a body-worn mode of operation.”

18. Applicants’ claim 20 further recites “an operational mode controller configured to determine when said speech processor module is mounted in said case and to place said speech processor module in said body-worn mode of operation when said module is mounted in said case.” (*See*, Applicants’ claim 20, above.) As noted above, the acoustic hearing aid of Berger is not operable in both of a “stand-alone mode of operation and a body-worn mode of operation” as defined in Applicants’ claims. As such, because Berger cannot enter such multiple modes, it is impossible for Berger to disclose the claimed “operational mode controller” configured to place the “speech processor module in said body-worn mode of operation.” Applicants further assert that Berger fails to disclose all elements of claim 20 because Berger fails to disclose a component that determines when the “speech processor module is mounted in said case,” and which takes the specific action of placing the speech processor module in a specific mode of operation as recited in Applicants’ claim 20.

19. Applicants further assert that it would not be obvious to modify Berger to include the “operational mode controller” of Applicants’ claim 20. In particular, the hearing aid of Berger only includes a microphone and fails to disclose the use of any external microphones. Because no additional microphones are used, there is no need for the hearing aid to make a determination as to whether or not the speech processor is mounted in the case, and to utilize a different microphone based on such a determination.

20. For at least the reasons detailed above, Applicants assert that Berger fails to anticipate or render obvious the invention recited in claim 20. Therefore, Applicants respectfully request that the rejection of claim 20 under 35 U.S.C. §102 be reconsidered, and that it be withdrawn.

Claim 30

21. Applicants' amended claim 30 is directed to an "external component of a cochlear implant hearing system, comprising: a speech processor module operable in a stand-alone mode of operation and a body-worn mode of operation, and comprising an internal microphone, wherein said speech processor module receives signals from said internal microphone when operable in said stand-alone mode of operation." (*See*, Applicants' claim 30, above; emphasis added.) Applicants claim 30 further recites that "said module receives signals from said external microphone when operable in said stand-alone mode of operation." (*See*, Applicants' claim 30, above.)
22. As noted, Berger fails to disclose the use of an external microphone in addition to its internal microphone. Therefore, because Berger cannot make use of two different microphones based on the mode of operation of the device, Applicants assert that Berger fails to disclose that the hearing aid, or any speech processor contained therein, operates in both of a "stand-alone mode of operation and a body-worn mode of operation."
23. Applicants' claim 30 further recites "an operational mode controller configured to determine when said speech processor module is mounted in said case and to place said speech processor module in said body-worn mode of operation when said module is mounted in said case." (*See*, Applicants' claim 30, above.) As noted above, the acoustic hearing aid of Berger is not operable in both of a "stand-alone mode of operation and a body-worn mode of operation" as defined in Applicants' claims. As such, because Berger cannot enter such multiple modes, it is impossible for Berger to disclose the claimed "operational mode controller" configured to place the "speech processor module in said body-worn mode of operation." Applicants further assert that Berger fails to disclose all elements of claim 30 because Berger fails to disclose a component that determines when the "speech processor module is mounted in said case," and which takes the specific action of placing the speech processor module in a specific mode of operation as recited in Applicants' claim 30.
24. For at least the reasons detailed above, Applicants assert that Berger fails to anticipate or render obvious the invention recited in claim 30. Therefore, Applicants respectfully request that the rejection of claim 30 under 35 U.S.C. §102 be reconsidered, and that it be withdrawn.

Claim Rejections under §102(b) in view of Leedom et al.

25. Claims 20-24, 27, 30-34 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 7,113,611 to Leedom et al. (hereinafter, “Leedom”). For at least the reasons discussed below, Applicants respectfully disagree.

26. Leedom is directed to a disposable in-the-ear acoustic hearing aid. (*See*, Leedom, Abstract; col. 3, lns. 39-61.) The hearing aid is modular in design and comprises two main components: a replaceable base unit and a replaceable earmold. (*See*, Leedom, col. 3, lns. 39-61.) The earmold comprises a soft material that is configured to be comfortably fit into the ear of the user. (*See*, Leedom, col. 9, lns. 4-33.) In certain embodiments, the earmold may have one or more functional components, such as a battery, therein. (*See*, Leedom, col. 9, ln. 65- col. 10, ln. 33.) The baseunit is rigid or semi-rigid structure configured to be releasably attached to the ear mold. (*See*, Leedom, col. 9, lns. 4-33.) The baseunit has one or more functional components such as a receiver, microphone, electronics, *etc*, therein. (*See*, Leedom, FIG. 3A; col. 9, ln. 65- col. 10, ln. 33.)

27. In the specific embodiments relied upon by the Examiner, the modular hearing aid comprises an integrated unit of an earmold, shell and battery. (*See*, Leedom, FIGS. 3A-3B, col. 9, ln. 65- col. 10, ln. 43.) The hearing aid further comprises a baseunit that is inserted into the shell for attachment thereto. (*See*, Leedom, col. col. 10, lns. 10-43.) The battery has contacts which mate with the baseunit. (*See*, Leedom, col. col. 10, lns. 10-43.)

Claim 20

28. Applicants’ amended claim 20 is directed to an “external component of a cochlear implant hearing system, comprising: a speech processor module operable in a stand-alone mode of operation and a body-worn mode of operation, and comprising an internal microphone, wherein said speech processor module receives signals from said internal microphone when operable in said stand-alone mode of operation.” (*See*, Applicants’ claim 20, above; emphasis added.) Applicants claim 20 further recites that “said module receives signals from said external microphone when operable in said stand-alone mode of operation.” (*See*, Applicants’ claim 20, above.)

29. As noted, Leedom discloses an in-the-ear hear aid having a microphone positioned inside the baseunit. (*See*, Leedom, FIG. 3A; col. 9, ln. 65- col. 10, ln. 33.) Leedom fails to disclose the use of an external microphone in addition to this internal microphone. Therefore, because Leedom cannot make use of two different microphones based on the mode of operation of the device, Applicants assert that Leedom fails to disclose that the hearing aid, or any speech processor contained therein, operates in both of a “stand-alone mode of operation and a body-worn mode of operation.”

30. Applicants’ claim 20 further recites “an operational mode controller configured to determine when said speech processor module is mounted in said case and to place said speech processor module in said body-worn mode of operation when said module is mounted in said case.” (*See*, Applicants’ claim 20, above.) As noted above, the acoustic hearing aid of Leedom is not operable in both of a “stand-alone mode of operation and a body-worn mode of operation” as defined in Applicants’ claims. As such, because Leedom cannot enter such multiple modes, it is impossible for Leedom to disclose the claimed “operational mode controller” configured to place the “speech processor module in said body-worn mode of operation.” Applicants further assert that Leedom fails to disclose all elements of claim 20 because Leedom fails to disclose a component that determines when the “speech processor module is mounted in said case,” and which takes the specific action of placing the speech processor module in a specific mode of operation as recited in Applicants’ claim 20.

31. Applicants further assert that it would not be obvious to modify Leedom to include the “operational mode controller” of Applicants’ claim 20. In particular, the hearing aid of Leedom only includes a microphone and fails to disclose the use of any external microphones. Because no additional microphones are used, there is no need for the hearing aid to make a determination as to whether or not the speech processor is mounted in the case, and to utilize a different microphone based on such a determination.

32. For at least the reasons detailed above, Applicants assert that Leedom fails to anticipate or render obvious the invention recited in claim 20. Therefore, Applicants respectfully request that the rejection of claim 20 under 35 U.S.C. §102 be reconsidered, and that it be withdrawn.

Claim 30

33. Applicants' amended claim 30 is directed to an "external component of a cochlear implant hearing system, comprising: a speech processor module operable in a stand-alone mode of operation and a body-worn mode of operation, and comprising an internal microphone, wherein said speech processor module receives signals from said internal microphone when operable in said stand-alone mode of operation." (*See*, Applicants' claim 30, above; emphasis added.) Applicants claim 30 further recites that "said module receives signals from said external microphone when operable in said stand-alone mode of operation." (*See*, Applicants' claim 30, above.)

34. As noted, Leedom fails to disclose the use of an external microphone in addition to tss internal microphone. Therefore, because Leedom cannot make use of two different microphones based on the mode of operation of the device, Applicants assert that Leedom fails to disclose that the hearing aid, or any speech processor contained therein, operates in both of a "stand-alone mode of operation and a body-worn mode of operation."

35. Applicants' claim 30 further recites "an operational mode controller configured to determine when said speech processor module is mounted in said case and to place said speech processor module in said body-worn mode of operation when said module is mounted in said case." (*See*, Applicants' claim 30, above.) As noted above, the acoustic hearing aid of Leedom is not operable in both of a "stand-alone mode of operation and a body-worn mode of operation" as defined in Applicants' claims. As such, because Leedom cannot enter such multiple modes, it is impossible for Leedom to disclose the claimed "operational mode controller" configured to place the "speech processor module in said body-worn mode of operation." Applicants further assert that Leedom fails to disclose all elements of claim 30 because Leedom fails to disclose a component that determines when the "speech processor module is mounted in said case," and which takes the specific action of placing the speech processor module in a specific mode of operation as recited in Applicants' claim 30.

36. For at least the reasons detailed above, Applicants assert that Leedom fails to anticipate or render obvious the invention recited in claim 30. Therefore, Applicants respectfully request that the rejection of claim 30 under 35 U.S.C. §102 be reconsidered, and that it be withdrawn.

Dependent claims

37. The dependent claims incorporate all the subject matter of their respective independent claims and add additional subject matter which makes them independently patentable over the art of record. Accordingly, Applicants respectfully assert that the dependent claims are also allowable over the art of record.

New Claims

38. Applicants have added new claims 47-52 to further claim embodiments of the present invention. Applicants submit that no new matter has been added.

Conclusion

39. In view of the foregoing, Applicants respectfully submit that this application is now in condition for allowance. A notice to this effect is respectfully requested.

40. Applicants make no admissions by not addressing any outstanding rejections or basis of rejections. Furthermore, Applicants reserve the right to pursue any cancelled claims or other subject matter disclosed in this application in a continuation or divisional application. Thus, cancellations and amendments of above claims, are not to be construed as an admission regarding the patentability of any claims.

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Respectfully submitted,

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